

## CLAIMS

1/ A device for protecting a cover, the device comprising a hollow tubular protective element which is open at both ends, referred to as a protective tube, at least a portion of said cover being placed inside the tube, the cover being flexible and in the form of a tube that is closed at one end and open at its other end.

5 2/ A device according to claim 1, having means facilitating insertion of the cover inside the protective tube.

10 3/ A device according to claim 2, wherein the means for facilitating insertion comprise a flexible coupling mounted on that one of the open ends of the protective tube which is adjacent to the closed end of the cover, specifically so as to enable temporary suction to be established in this region.

15 20 4/ A device according to claim 1, wherein the protective tube has a plurality of means enabling localized regions to be established in which the cover is not in contact with the inside wall of the protective tube, and in particular internal ridges preferably disposed substantially parallel to the longitudinal axis of the protective tube.

25 5/ A device according to claim 4, wherein the ridges are continuous, extending substantially from one end to the other of the protective tube, thereby making it possible, for example, to establish temporary suction between the cover and the inside wall of the tube.

30 35 6/ A device according to claim 1, wherein the cover is flexible and is folded back over the protective tube at its end remote from the closed end of the cover.

7/ A device according to claim 1, in which the protective tube has an inside wall, and wherein the protective tube has means for holding the cover substantially against the inside wall of the protective tube, e.g. means comprising 5 a rod of appropriate diameter.

8/ A device according to claim 1, wherein the cover contains an impedance-matching medium, and in particular a gel, for matching impedance between the cover itself 10 and a measuring element for insertion at least temporarily inside the flexible cover.

9/ A device according to claim 8, wherein the impedance-matching medium is an acoustic impedance-matching medium, 15 thus enabling soundwaves to be transmitted substantially without disturbance.

10/ A device according to claim 8, wherein the impedance-matching medium is disposed substantially at the closed 20 end of the cover, said impedance-matching medium, such as a gel, preferably being biocompatible, and better still being edible.

11/ A device according to claim 1, the device being 25 sterilized, in particular packaged in a sterilizable sealed package which is advantageously transparent, at least in part.

12/ A device according to claim 1, wherein the cover is 30 of a length that is sufficient to cover the outside surface of an intracorporeal probe, preferably an intracorporeal probe having an ultrasound type measuring element, e.g. for measuring the speed or flow rate of a flowing body fluid, such as blood.

13/ A device according to claim 1, wherein the cover is made of a sterilizable flexible material such as silicone or a natural or synthetic rubber such as SEBS.

5 14/ A method of fitting a cover on a probe, the cover having an opening and being contained at least in part inside a tube, a device according to claim 1 being provided, wherein:

- a) the protective tube is coupled to a vacuum pump;
- 10 b) a vacuum is established inside the tube adjacent to the closed end of the cover within a closed space as defined between the cover, the vacuum pump, and the protective element;
- c) the rod is withdrawn while the vacuum is maintained;
- 15 d) the probe is inserted into the cover;
- e) the vacuum is eliminated; and
- f) the assembly comprising the probe with the cover mounted thereon is withdrawn.

20 15/ A method of fitting a cover on a probe that is to be inserted in an animal or a human being, in particular in a natural passage such as the esophagus, the urethra, the rectum, or a blood vessel, said cover being optionally 25 sterile, the cover having an opening and being contained at least in part inside a tube, a device according to claim 1 being provided, wherein:

- a) the protective tube is coupled to a vacuum pump;
- b) a vacuum is established inside the tube adjacent 30 to the closed end of the cover within a closed space as defined between the cover, the vacuum pump, and the protective element;
- c) the rod is withdrawn while the vacuum is maintained;
- 35 d) the probe is inserted into the cover;
- e) the vacuum is eliminated; and

f) the assembly comprising the probe with the cover mounted thereon is withdrawn.

16/ A method of making a device according to claim 1,  
5 wherein:

g) the cover is prepared by cutting a portion of flexible tube from a reel on which the tube is wound, which portion serves to constitute the cover, and by sealing one end of the portion by means of a hot press;

10 h) the cover is inserted in the tube by means of a rod, and a few millimeters of the cover is folded back over the tube;

i) a predetermined quantity of an impedance-matching medium is inserted inside the cover, and then the plug 15 rod is inserted into the cover; and

j) the device prepared in this way and accompanied by a cutting tool is packaged individually.

17/ A method according to claim 16, wherein suction is 20 established outside the cover prior to inserting the impedance-matching medium and the plug rod into the cover, after which the suction is eliminated.